

CLAIMS What is claimed is:

1. A polyethylene composition comprising:
 - (a) a first polyethylene having a melt index of 0.4 to 3.0 g/10 min and a density of from 0.910 to 0.930 g/cm³; and
 - (b) a second polyethylene having a melt index of 10 to 30 g/10 min and a density of 0.945 to 0.975 g/cm³,wherein the composition has a density of from 0.930 to 0.955 g/cm³ and a melt index of 1.5 to 12 g/10 min, and wherein the first and second polyethylenes differ in density by from 0.030 to 0.048 g/cm³.
2. The composition of claim 1, wherein at least one of the first and second polyethylenes is a metallocene-catalyzed polyethylene.
3. The composition of claim 1, wherein the first and second polyethylenes are metallocene-catalyzed polyethylenes.
4. The composition of claim 1, wherein each of the first and second polyethylenes has an Mw/Mn ratio of from 1.4 to 4.0.
5. The composition of claim 4, wherein the Mw/Mn ratio is from 1.8 to 3.5.
6. The composition of claim 1, wherein the first polyethylene has a density of from 0.911 to 0.926 g/cm³.
7. The composition of claim 1, wherein the second polyethylene has a density of from 0.950 to 0.970 g/cm³.
8. The composition of claim 1, wherein the second polyethylene has a density of from 0.955 to 0.965 g/cm³.

9. The composition of claim 1, wherein the composition has a density of from 0.932 to 0.950 g/cm³.
10. The composition of claim 1, wherein the composition has a density of from 0.935 to 0.945 g/cm³.
11. The composition of claim 1, wherein the first and second polyethylenes differ in density by from 0.032 to 0.045 g/cm³.
12. The composition of claim 1, wherein the composition has a melt index I_{2,16} of from 2 to 10 g/10 min.
13. The composition of claim 1, wherein the blend comprises 80% to 20% by weight of the first polyethylene and 20% to 80% by weight of the second polyethylene, based on the total weight of the first and second polyethylenes.
14. The composition of claim 1, wherein the blend comprises 65% to 35% by weight of the first polyethylene and 35% to 65% by weight of the second polyethylene, based on the total weight of the first and second polyethylenes.
15. The composition of claim 1, wherein the blend comprises 55% to 45% by weight of the first polyethylene and 45% to 55% by weight of the second polyethylene, based on the total weight of the first and second polyethylenes.
16. The composition of claim 1, wherein the composition has an ESCR value of at least 250 hr.
17. The composition of claim 1, wherein the composition has an ESCR value of at least 500 hr.

18. The composition of claim 1, wherein the composition has an ESCR value of at least 750 hr.
19. The composition of claim 1, wherein the composition has an ESCR value of at least 1000 hr.
20. The composition of claim 1, wherein the composition has an Izod impact strength of at least 120 kJ/m, for a 3.17 mm sample at -40 °C.
21. The composition of claim 1, wherein the blend consists essentially of the first and second polyethylenes.
22. The composition of claim 1, wherein at least one of the first and second polyethylenes comprises a blend of two or more polyethylene resins.
23. A rotomolded article comprising a polyethylene composition, the polyethylene composition comprising:
 - (a) a first polyethylene having a melt index of 0.4 to 3.0 g/10 min and a density of from 0.910 to 0.930 g/cm³; and
 - (b) a second polyethylene having a melt index of 10 to 30 g/10 min and a density of 0.945 to 0.975 g/cm³,wherein the composition has a density of from 0.930 to 0.955 g/cm³ and a melt index of 1.5 to 12 g/10 min, and wherein the first and second polyethylenes differ in density by from 0.030 to 0.048 g/cm³.
24. The rotomolded article of claim 23, wherein at least one of the first and second polyethylenes is a metallocene-catalyzed polyethylene.
25. The rotomolded article of claim 23, wherein the first and second polyethylenes are metallocene-catalyzed polyethylenes.

26. The rotomolded article of claim 23, wherein each of the first and second polyethylenes has an Mw/Mn ratio of from 1.4 to 4.0.
27. The rotomolded article of claim 25, wherein the Mw/Mn ratio is from 1.8 to 3.5.
28. The rotomolded article of claim 23, wherein the first polyethylene has a density of from 0.911 to 0.926 g/cm³.
29. The rotomolded article of claim 23, wherein the second polyethylene has a density of from 0.950 to 0.970 g/cm³.
30. The rotomolded article of claim 23, wherein the second polyethylene has a density of from 0.955 to 0.965 g/cm³.
31. The rotomolded article of claim 23, wherein the composition has a density of from 0.932 to 0.950 g/cm³.
32. The rotomolded article of claim 23, wherein the composition has a density of from 0.935 to 0.945 g/cm³.
33. The rotomolded article of claim 23, wherein the first and second polyethylenes differ in density by from 0.032 to 0.045 g/cm³.
34. The rotomolded article of claim 23, wherein the composition has a melt index I_{2,16} of from 2 to 10 g/10 min.
35. The rotomolded article of claim 23, wherein the blend comprises 80% to 20% by weight of the first polyethylene and 20% to 80% by weight of the second polyethylene, based on the total weight of the first and second polyethylenes.

36. The rotomolded article of claim 23, wherein the blend comprises 65% to 35% by weight of the first polyethylene and 35% to 65% by weight of the second polyethylene, based on the total weight of the first and second polyethylenes.
37. The rotomolded article of claim 23, wherein the blend comprises 55% to 45% by weight of the first polyethylene and 45% to 55% by weight of the second polyethylene, based on the total weight of the first and second polyethylenes.
38. The rotomolded article of claim 23, wherein the composition has an ESCR value of at least 250 hr.
39. The rotomolded article of claim 23, wherein the composition has an ESCR value of at least 500 hr.
40. The rotomolded article of claim 23, wherein the composition has an ESCR value of at least 750 hr.
41. The rotomolded article of claim 23, wherein the composition has an ESCR value of at least 1000 hr.
42. The rotomolded article of claim 23, wherein the composition has an Izod impact strength of at least 120 kJ/m, for a 3.17 mm sample at -40 °C.
43. The rotomolded article of claim 23, wherein the blend consists essentially of the first and second polyethylenes.
44. The rotomolded article of claim 23, wherein at least one of the first and second polyethylenes comprises a blend of two or more polyethylene resins.

45. A process for forming a rotomolded article, the process comprising:

- (a) providing a polyethylene composition comprising
 - (i) a first polyethylene having a melt index of 0.4 to 3.0 g/10 min and a density of from 0.910 to 0.930 g/cm³; and
 - (ii) a second polyethylene having a melt index of 10 to 30 g/10 min and a density of 0.950 to 0.975 g/cm³,wherein the composition has a density of from 0.930 to 0.955 g/cm³ and a melt index of 1.5 to 12 g/10 min, and wherein the first and second polyethylenes differ in density by from 0.030 to 0.048 g/cm³; and
- (b) rotomolding the polyethylene composition to form a rotomolded article.